

CAPITAL CONTROLS® G50 Series

Chlorine Dioxide Generator

The CAPITAL CONTROLS® G50 chlorine dioxide generator is a two-chemical system, utilizing chlorine gas and 25 - 31 wt % sodium chlorite in the production of chlorine dioxide. A proven design, durable construction and the use of the best available corrosion-resistant materials assure efficient chlorine dioxide production, precise solution feeding, low maintenance and dependable operation for the life of the equipment.

Key Benefits

- All Vacuum System: The reagents are drawn into the generator by a vacuum, produced by an integral ejector. The chlorine dioxide gas produced by the generator is mixed with the ejector motive water and applied as a solution.
- Capacities: standard chlorine dioxide generator units are available in a range of capacities from 250 lb/day to 2500 lb/day (5 kg/h to 50 kg/h) of chlorine dioxide gas.



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Technical Information:

Capacity:

Up to 2500 lb/day per skid

10 to 1, flowmeter indication and control limits.

Connections (2500 lb/day):

Ejector water inlet: 2" NPT (DN 50)

Cl₂ gas inlet: 1" NPT (DN 25)

Sodium chlorite inlet: ½" NPT (DN 15)

Chlorine dioxide solution outlet: 2" NPT (DN 5)

Electrical Requirements (2500 lb/day):

120 Vac or 220 Vac, 50-60 Hz - 15A

Input/Output Signals:

- 4-20 mADC inputs for process flow and/or residual feedback control
- Contact inputs for chlorine leak, reagent reservoir low level, dilution water low pressure and remote start/stop.
- Optional serial link RS485, RS422, RS232, MODBUS

Reagents:

- Chlorine gas
- 25% to 31% sodium chlorite wt. %

Dimensions:

72" L x 32" W x 72" H

(1828.8 mm x 812.8 mm x 1828.8 mm)

Standard Unit:

- Instrumentation: Sight glass, vacuum gauge and Mag flowmeters for water and sodium chlorite
- Skid mounted, accessible, rigid tested plug-n-play for ease of installation
- PLC touch screen auto control

Materials of Construction:

Skid:

316 Stainless Steel, passivated

Piping:

Schedule 80 PVC.

Reagent Control Valves:

KYNAR, PVC

Recommended Accessories Available:

- Chlorine Dioxide Solution Concentration Monitor: 0 - 4000 ppm
- Chlorine Dioxide Gas Detector: 0 - 100 ppm
- Chlorine Dioxide Residual Analyzer: 0 - 10 mg/L
- Serial Link RS485, RS232, RS422, MODBUS

Description of Operation

The chlorine gas and sodium chlorite reagents are drawn into the generator under a vacuum, produced by an integral ejector. Reagent flow is controlled by Chloromatic™ valves, which are individually sized for each dosage capacity.

The chlorine dioxide gas is drawn out of the reaction chamber under a vacuum produced by the integral ejector where it is mixed with the ejector motive water and applied as a solution. The solution is passed through a sight glass for visual verification of product quality. The entire system is completely under vacuum from reagent draw into the generator to the ejector. If a low vacuum condition exists, valves will shut-off reagent flows to the generator. A low vacuum alarm contact is included.

An automatically controlled system utilizes input signals for flow or residual.

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